

July 29. Springfield, L. I. Meet at Long Island Ferry, 34th St., 9 A. M. Guide, Mr. F. J. Seaver.

August 5. Mosholu, N. Y. City. Meet at 155th Station Elevated R. R., 1 P. M. Guide, Dr. William Mansfield.

August 12. New Baltimore and Cossackie, N. Y. Meet at New Baltimore Hotel, 9 A. M., August 12. Fare, \$5.00. Hotel rates, \$2.00 per day. Guide, Dr. E. B. Southwick.

August 19. Pelham Bay Beach. Meet at Bartow Station, Pelham Bay Park, 1 P. M. Guide, Dr. M. A. Howe.

August 26. Moonachie, N. J. Meet at Rutherford Trolley, Hoboken, 1 P. M. Guide, Mr. G. V. Nash.

E. B. SOUTHWICK, *Chairman.*

THE ARSENAL, CENTRAL PARK,  
N. Y. CITY.

## PROCEEDINGS OF THE CLUB

APRIL 11, 1911

The meeting of April 11, 1911, was held at the American Museum of Natural History at 8:15 P.M. Dr. E. B. Southwick presided. Thirty-two persons were present.

The regular order of business was dispensed with and the announced lecture of the evening on "Poisonous Mushrooms," by Dr. W. A. Murrill, was then presented. The lecture was illustrated with many lantern slides. An abstract of the lecture prepared by the speaker follows. A more complete discussion of the subject by Dr. Murrill may be found in the November number of MYCOLOGIA for 1910.

"Considering its importance, it is remarkable how little is really known about this subject, most of the literature centering about two species, *Amanita muscaria* and *Amanita phalloides*, which have been the chief causes of death from mushroom eating the world over.

"As the use of mushrooms in this country for food becomes more general, the practical importance of this subject will be vastly increased, and it may be possible to discover perfect antidotes or methods of treatment which will largely overcome the

effects of deadly species. This would be a great boon even at the present time, and there will always be children and ignorant persons to rescue from the results of their mistakes. Another very interesting field, both theoretical and practical in its scope, is the use of these poisons in minute quantities as medicines, as has been done with so many of the substances extracted from poisonous species of flowering plants, and even from the rattlesnakes and other animals. Thus far, only one of them, the alkaloid muscarine, has been so used.

"The poisons found in flowering plants belong chiefly to two classes of substances, known as alkaloids and glucosides. The former are rather stable and well known bases, such as aconitine from aconite, atropine from belladonna, nicotine from tobacco, and morphine from the poppy plant. Glucosides, on the other hand, are sugar derivatives of complex, unstable, and often unknown composition, such as the active poisons in digitalis, hellebore, wistaria, and several other plants.

"The more important poisons of mushrooms also belong to two similar classes, one represented by the alkaloid muscarine, so evident in *Amanita muscaria*, and the other by the deadly principle in *Amanita phalloides*, which is known mainly through its effects. Besides these, there are various minor poisons, usually manifesting themselves to the taste or smell, that cause local irritation and more or less derangement of the system, depending upon the health and peculiarities of the individual.

"The principal species of poisonous fungi were illustrated by colored lantern slides, the series containing *Amanita cothurnata* Atk., *Amanita muscaria* L., *Amanita phalloides* Fries, *Amanita strobiliformis* Vittad., *Clitocybe illudens* Schw., *Inocybe infide* Peck, *Panus stypticus* Fries, *Russula emetica* Fries, and several other poisonous species of interest."

Meeting adjourned.

B. O. DODGE, *Secretary*.

APRIL 26, 1911

The meeting of April 26, 1911, was held in the museum building of the New York Botanical Garden at 3:30 P.M. Vice-president Barnhart presided. Twelve persons were present.

The minutes of the meetings of March 29 and April 11 were read and approved.

The first number on the announced scientific program was a paper on "Fern Collecting in Cuba," by Mrs. N. L. Britton. This paper is published in full in the *American Fern Journal*, Vol. I, p. 75.

The next number was a discussion of "Fern Venation," by Miss Margaret Slossen. A more complete discussion of the subject by Miss Slossen may be found in her book "How Ferns Grow."

The meeting then adjourned to the Fern House of the New York Botanical Garden under the guidance of Mrs. N. L. Britton for a further study of ferns.

B. O. DODGE, *Secretary*.

## REVIEWS

### **Hunter's Essentials of Biology and Sharpe's Laboratory Manual in Biology**

Essentials of Biology\* is the title of a new and fuller book by George William Hunter, designed also apparently to fit the New York City syllabus. It is accompanied by Richard W. Sharpe's Laboratory Manual in Biology.†

Hunter's volume is a great improvement over his earlier book in content, illustration, and correlation of the three subjects, botany, zoölogy and physiology. The problem idea which runs throughout is a good one, but all the subject matter does not lead itself readily to this arrangement (*e. g.*, the patent medicine discussion). Fertilization is not really explained by the text (p. 36) and alternation of generations as treated under mosses can mean nothing until after the following chapter on ferns has been completed. There are also a few misleading statements, such as the storing of proteids for future use (p. 345), the implied "osmosis of starch" (p. 106, p. 356) and that plants absorb only useful substances (p. 32). These graded reference lists are helpful, and the varied illustrations add much to the value of the book.

\* Hunter, George William. *Essentials of Biology Presented in Problems*. Pp. 448. American Book Company. 1911.

† Sharpe, Richard W. *A Laboratory Manual for the Solution of Problems in Biology*. Pp. 352. American Book Company. 1911.